What Is Claimed Is:

1. A method of reducing the number of times a main power unit of a hybrid electric vehicle is activated to supply power to an auxiliary system of the vehicle during a given drive cycle comprising a sequence of the following steps:

determining the ON/OFF status of said unit;

if the unit is ON requesting that the unit be maintained ON until the value of an auxiliary system parameter exceeds a first threshold value; and

if the unit is OFF requesting that the unit be turned ON when the value of said parameter falls below a second threshold value.

2. A method of reducing the number of times a main power unit of a hybrid electric vehicle is activated to supply power to an auxiliary system of the vehicle during a given drive cycle comprising a sequence of the following steps:

determining the ON/OFF status of said unit;

determining whether the value of an auxiliary system parameter is within or outside a window defined by first and second threshold values;

requesting a change of status from OFF to ON if the value of the parameter is outside said window and greater than said second threshold value; and

requesting a change of status from ON to OFF if the value of the parameter is outside said window and greater than said first threshold value.

3. The method of Claim 1 wherein said first threshold value is a unit ON auxiliary system threshold

value and said second threshold value is a unit OFF auxiliary system threshold value and further comprises the steps of:

setting said unit OFF auxiliary system threshold value when the status of said unit is OFF; and

setting said unit ON auxiliary system threshold value when the status of said unit is ON.

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4. The method of Claim 1 wherein said main power unit is a piston driven engine.

5. The method of Claim 1 wherein said auxiliary system is a brake booster vacuum system.

6. The method of Claim 1 wherein said auxiliary system is an air conditioning and heating system.

7. The method of Claim 1 wherein said auxiliary system is a purge vapor system.

8. The method of Claim 7 wherein said auxiliary system is a catalyst system.

9. The method of Claim 3 wherein said vehicle includes a plurality of auxiliary systems and said step of requesting that a unit ON status be maintained is performed if a predetermined parameter in any of said plurality of auxiliary systems is below respective unit ON auxiliary system threshold values, and said step of requesting a unit ON status is performed if a predetermined parameter in any of said

plurality of auxiliary systems is below respective unit OFF auxiliary system threshold value.

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10. A system for reducing the number of times a main power unit of a hybrid electric vehicle is activated to supply power to an auxiliary system of the vehicle during a given drive cycle comprising:

means determining the ON/OFF status of said unit;

means requesting that the unit be maintained ON until the value of an auxiliary system parameter exceeds a first threshold value; and

means requesting that the unit be turned ON when the value of said parameter falls below a second threshold value.

11. The system of Claim 10 wherein said main power unit is a piston driven engine.

12. The system of Claim 10 wherein said auxiliary system is a brake booster vacuum system.

13. The system of Claim 10 wherein said auxiliary system is an air conditioning and heating system.

14. The system of Claim 10 wherein said auxiliary system is a purge vapor system.

15. The system of Claim 14 wherein said auxiliary system is a catalyst system.

16. An article of manufacture comprising:

a computer storage medium having a computer program encoded therein for reducing the number of times a main power unit of a hybrid electric vehicle is activated to supply power to an auxiliary system of the vehicle during a given drive cycle, said computer storage medium comprising:

code for determining the ON/OFF status of said unit;

code for requesting that the unit be maintained ON until the value of an auxiliary system parameter exceeds a first threshold value; and

code for requesting that the unit be turned ON when the value of said parameter falls below a second threshold value.

17. The article of Claim 16 wherein said main power unit is a piston driven engine.

18. The article of Claim 16 wherein said auxiliary system is a brake booster vacuum system.

19. The article of Claim 16 wherein said auxiliary system is an air conditioning and heating system.

20. The article of Claim 16 wherein said auxiliary system is a purge vapor system.

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